

## ABSTRACT OF THE DISCLOSURE

The present inventors have discovered that Biotin synthase (BS) is essential for plant growth. Specifically, inhibition of BS gene expression in plant seedlings  
5 results in severe chlorosis and reduced growth. Thus, BS can be used as a target for the identification of herbicides. Accordingly, the present invention provides methods for the identification of compounds that inhibit BS expression or activity, and as such, the methods of the invention are useful for the identification of herbicides.